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Research Article

A CROSS-SECTIONAL RESEARCH TO DETERMINE THE LEVEL OF AWARENESS, PREVENTIVE BEHAVIOR AND PERCEIVED THREAT OF HEPATITIS-B

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Abstract:

Background: Hepatitis-B refers to an acute systemic infection which is a result of Hepatitis B Virus (HBV) with long term complexities such as liver cancer, liver failure, and hepatocellular carcinoma.

Objective: The objective of this research was to determine the awareness level of nurses about the preventive measures and threat of the Hepatitis-B.

Methods: We carried out this cross-sectional research at Sir Ganga Ram Hospital, Lahore (September 2017 to July 2018). The research population consisted n a total of 330 nurses which were selected randomly. All the participants volunteered themselves for the research by filling a self-administered questionnaire. Confidence Interval was 95% (T-Test), SPSS was used for data analysis by employing bivariate correlations.

Results: The research outcomes suggest that Hepatitis-B preventive intended behavior has an inverse relation with age ($r = -0.115$); whereas, it was significantly associated with the perceived side effects threat ($r = 0.341$). Behavior intention and higher education were correlated for Hepatitis-B preventive behavior (P -Value < 0.013).

Conclusion: In the light of research outcomes; we can presume that implementation and designing of the educational programs for an enhanced level of seriousness are helpful to develop better Hepatitis-B preventive behavior among nurses.

Keyword: Nurse, Hepatitis B, Behavior, Perceived Threat, Inverse, Significant and Complexities.

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INTRODUCTION:

Hepatitis-B refers to an acute systemic infection which is a result of Hepatitis B Virus (HBV) with long term complexities such as liver cancer, liver failure, and hepatocellular carcinoma. It also causes liver cancer and liver swelling as well [1]. It also affects the patients in both psychological and physical way and reduces life quality [2].

Viral hepatitis is a common viral infection and it also among those infectious agents which may lead to premature death. People are affected all over the world as it also causes hepatocellular carcinoma all over the world. About 2 billion are at risk; whereas, 400 million are already affected [3]. Its prevalence varies all over the world like Western Europe & North America its contamination is under 1%, Indian subcontinent & Middle Eastern region its contamination is in the bracket of (2% – 5%) and highest contaminated areas are Southeast Asian countries & China with a contamination in the bracket of (5% – 10%) [4]. Iran is in the average affected group [5]. The field of awareness and preventive behavior is essential to counter the infectious virus [6]. Hepatitis-B is also among repeatedly occurring occupational diseases [7]. As nurses are at close and increased exposure to the risk factor for nurses is also high and awareness level also needs to uplift as they are in the close vicinity of sharp and pointed tools contaminated with the blood of the patients [8]. Vaccines are used for treatment but after ten to fifteen years of disease vaccines are not more effective among 33% of the patients; the only key is enhanced infection adherence and infection control methods to prevent the onset of disease with successful behavioral interventions and behavioral reforms [9 – 15]. Various authors have emphasized the role of increased severity and sensitivity above the knowledge and conduct of preventive practice [16, 17]. As the subject is important; therefore, the objective of our research was to determine the awareness level of nurses about the preventive measures and threat of the Hepatitis-B.

METHODS:

We carried out this cross-sectional research at Sir Ganga Ram Hospital, Lahore (September 2017 to July 2018). The research population consisted n a total of 330 nurses which were selected randomly. Ethical review committee permission was sought before the commencement of research. All the participants volunteered themselves for the research by filling a self-administered questionnaire. We analyzed three hundred questions in the course of research. Information of the participants included demographic detail and cognitive variables. Demographic detail included age, gender, educational level, history of job and marital status; whereas, cognitive scale included seventeen different items revolving around knowledge, behavior intention and perceived threat. Different items included questions about hepatitis disease, side effects, perceived threat, and behavioral evaluation. We also employed the Linkert Scale (Five Scales).

Before the conduct of the major project, we planned a pilot project in order to estimate various aspects of the research. During the pilot project, we assessed thirty nurses. Reliability assessment was made through alpha Cronbach which included cognitive constructs questionnaire of knowledge, perceived threat and behavior intention with respective alpha (α) value of 0.61, 0.78 and 0.75 respectively. Confidence Interval was 95% (T-Test), SPSS was used for data analysis by employing bivariate correlations.

RESULTS:

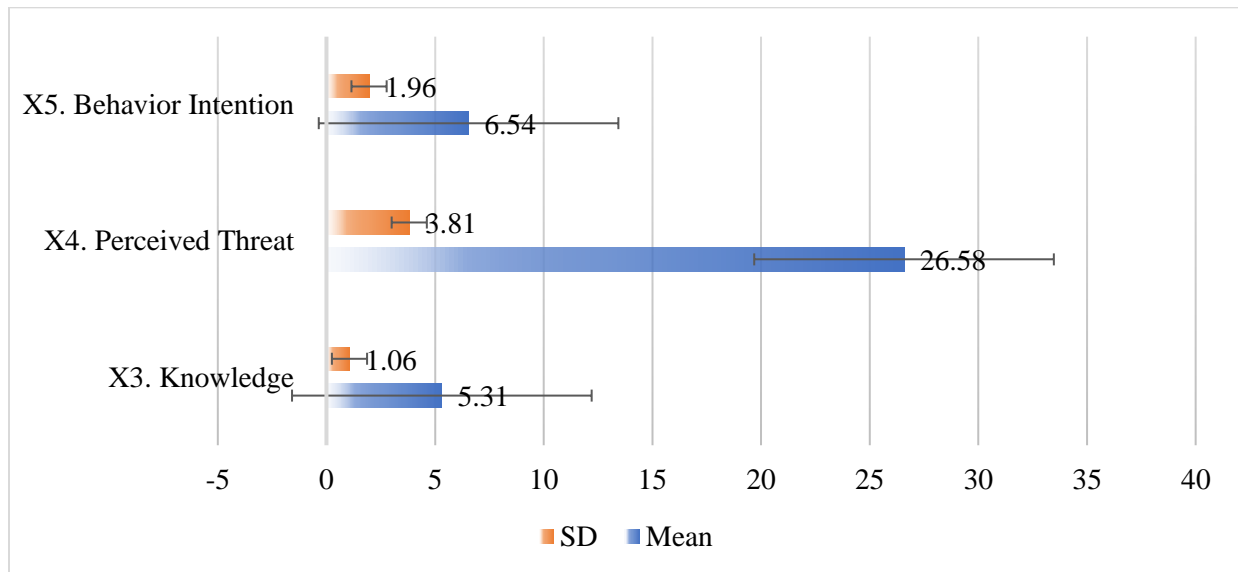
The research outcomes suggest that Hepatitis-B preventive intended behavior has an inverse relation with age ($r = - 0.115$); whereas, it was significantly associated with the perceived side effects threat ($r = 0.341$). Behavior intention and higher education were correlated for Hepatitis-B preventive behavior (P-Value < 0.013). The nurses were selected in the age bracket of (21 – 50) years with a mean age of (32.27 ± 7.18) years. Mean working experience was (8.74 \pm 6.95) years. In the total research population, 167 participants were male (55.7%) and 133 were female (44.3%). Detailed outcomes are given in Table – I, II & III.

Table – I: Correlation between various components

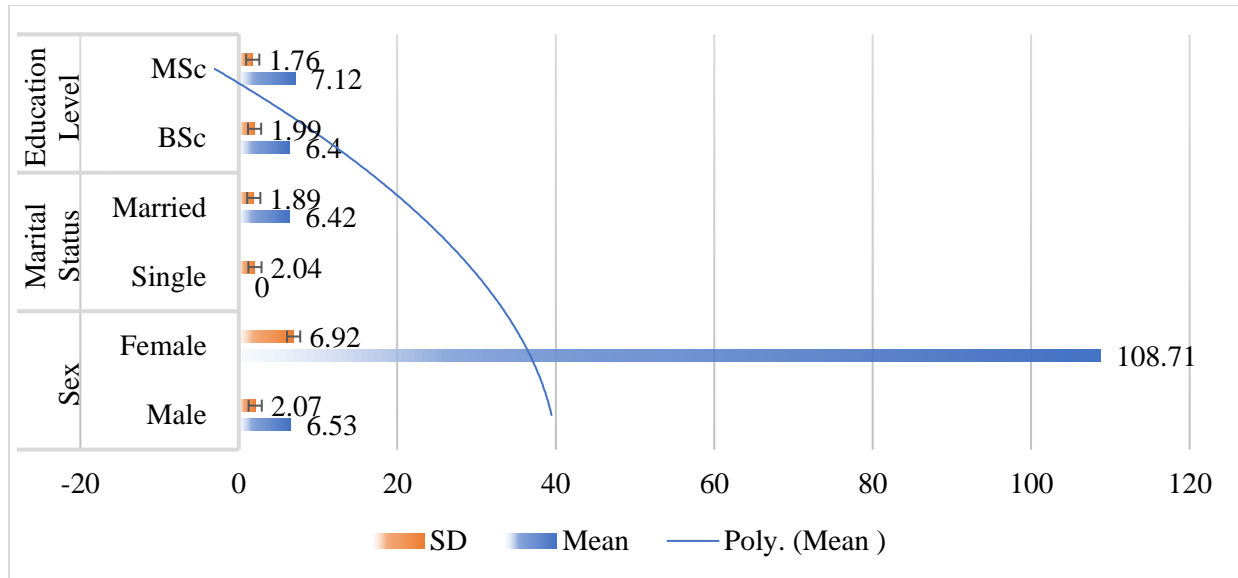
Component	X1	X2	X3	X4
X1. Age	1			
X2. Job History	0.946**	1		
X3. Knowledge	0.055	0.041	1	
X4. Perceived Threat	-0.061	-0.05	-0.1	1
X5. Behavior Intention	-0.115*	-0.07	0.04	0.341**

Table – II: Mean and SD Value with Range and Max Achievable Knowledge Score

Component	Mean	SD	Range	Maximum Achievable Score
X3. Knowledge	5.31	1.1	0 to 7	75.8
X4. Perceived Threat	26.58	3.8	8 to 10	66.4
X5. Behavior Intention	6.54	2	2 to 10	65.4

**Table – III:** Comparison of Variables

Variables		Mean	SD	t	P-Value
Sex	Male	6.53	2.1	-0.1	0.919
	Female	108.7	6.9		
Marital Status	Single	6.67.	2	1.081	0.281
	Married	6.42	1.9		
Education Level	BSc	6.4	2	-2.49	0.013
	MSc	7.12	1.8		



DISCUSSION:

Hepatitis vaccine was received by 82.7% participants thrice; whereas, Tibdewal reported vaccine therapy in 55.9% dental and medical undergraduates as a result of complete immunization program launched against Hepatitis-B [17]. Vaccines are used for treatment but after ten to fifteen years of disease, vaccines are not more effective among 33% of the patients which puts emphasis on the development of preventive behavior among nurses [9]. Prevention and risk perception are directly linked. Prevention has a direct and significant association with the general perception of the risk. Tuma studied perceived sensitivity with immunization among mothers and children [18]. Tabak showed that hospital staff considered needle stick as perceived risk [19]. Yusufzai also emphasized the importance of severity and related preventive behavior [20].

Outcomes reflect that one-third participant do not gain perceived risk; whereas, they are in a direct relationship of prevention of Hepatitis-B infection. There is a need to promote and encourage in-service professional preventive measured training. Nurses were not aware of the one-fourth of the disease transmission knowledge. According to Jawed, doctors have poor awareness level about the CDC guidelines of HIV infection, Hepatitis-B&C infection [21]. Timilshina, Singh, and Hosoglu also suggested weak global standard adherence by the healthcare professionals and students [22 – 24]. Healthcare professional should be aware of the latest development about the disease, disease cure, management, and preventive precautions. Complete information about the disease in the current scenario is mandatory for healthcare professionals. Chao found the knowledge

of disease to patients is less effective than healthcare staff [25]. Disease transmission and prevention training are mandatory for nursing staff at all levels of healthcare.

Age and education proved a significant association with Hepatitis-B prevention among nurses and healthcare staff. More educated individuals are more aware and cautious about infectious diseases. As a result, they practice extra care during exposure to blood and blood-stained tools. An inverse association is present between behavioural intention and working experience of the healthcare staff. Chances of injury are more if an individual spends a lot of time at work. Professionalism is the hallmark of any profession; so, healthcare professionals are to extra careful about the practice of preventive attitude and intentions.

CONCLUSION:

There is a significant relationship between behavioural intention and perceived risk factor. In the light of research outcomes; we can presume that implementation and designing of the educational programs for an enhanced level of seriousness are helpful to develop better Hepatitis-B preventive behavior among nurses.

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